

Job Description  
*Missouri State Highway Patrol*

Class Title: Criminalist II - Trace Evidence

Title Code: V00516

Effective Date: 04/24/96

Date Reviewed:

Date Revised: 12/27/04

**Immediate Supervisor:** Criminalist Supervisor

**Position Supervised:** None

**FLSA Classification:** Non-exempt

**Working Hours:** An employee in this position works an eight-hour shift as directed by the division director; however, working hours are subject to change at the discretion of the commanding authority.

POSITION SUMMARY

This is a responsible professional and technical position. Work includes performing complex and technical work in the scientific analysis of trace evidence. The employee may assist in the training of other criminalists and laboratory technicians. Work is performed under general supervision of a superior who makes assignments and provides advice and assistance in complex work methods; however, the employee is expected to work independently within the framework of established procedures and policies.

DESCRIPTION OF DUTIES PERFORMED

(Any one position may not include all of the duties listed nor do the listed examples include all tasks which may be found in positions of this class.)

Regularly accepts and analyzes trace evidence (e.g., hair and fiber comparisons, hand swab analysis for gunshot residue, shooting distance determination, fire debris analysis, explosives analysis, paint and glass comparison, soil analysis, filament exams and foreign substance contamination analysis) submitted from crime scenes or parties involved in criminal activity.

Makes decisions reference the appropriate test methodology based on the quantity and quality of the submitted sample.

Assesses submitted evidence to determine which items are most likely to associate or disassociate the victim or suspect with a crime scene.

Regularly works with a variety of potentially hazardous materials (e.g., HIV, hepatitis, and/or unknown pathogen contaminated body fluid evidence; unidentified chemicals on evidence).

Interprets test results obtained from the proper microscopic, instrumental, and chemical methods.

Participates in crime scene investigations as needed (e.g., collects, preserves, and examines evidence); assists in training lower level criminalists.

Routinely testifies as an expert witness in a court of law while maintaining composure under intense cross-examination.

Prepares evidence and exhibits; maintains report files; issues periodic and special reports as assigned.

Assists instructors conducting training of law enforcement personnel about trace evidence analysis.

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Educates prosecuting attorneys about complex scientific analysis and serves as a technical advisor during trial proceedings.

Generates and receives requests to and from other law enforcement agencies, prosecutors, attorneys, etc., reference criminal evidence and crime laboratory procedures.

Reviews and assists in revising standard operating procedures, training, quality control, and safety manuals, etc., within the chosen/related discipline.

Assists other criminalists and laboratory technicians in trace evidence analysis.

Assists in the development and application of methods and/or techniques to upgrade laboratory capability.

Participates in the proficiency testing program for the section.

Operates standard office equipment (i.e., personal computer, telephone, fax machine, copier, adding machine, etc.).

Participates in and successfully passes practical competency and/or written test(s) prior to assuming casework.

Performs job-related travel, as needed.

Performs basic photography as needed.

Performs other related duties as assigned.

### REQUIRED KNOWLEDGE, SKILLS, AND ABILITIES

Knowledge of the procedures and methods used in the scientific analysis of trace evidence.

Knowledge of the compilation and preparation of evidence for presentation in court and the role of an expert witness in legal proceedings.

Knowledge and practice of safety rules and procedures associated with laboratory equipment and chemicals.

Ability to read English effectively.

Ability to communicate in English clearly and concisely, both orally and in writing.

Ability to work with potentially hazardous materials as detailed in the description of duties.

Ability to generate and receive requests for information from a variety of individuals reference forensic science.

Ability to perform work in accordance with prescribed procedures, make accurate observations of test results, and prepare accurate records and reports.

Ability to gather, assemble, correlate, and analyze facts to be incorporated into a report of laboratory work and tests.

Ability to maintain composure while under cross-examination in regard to personal and scientific qualifications and defend laboratory findings in court.

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Ability to distinguish colors necessary to perform laboratory tests.

Ability to perform microscopic work for extended periods.

Ability to fire weapons (e.g., handguns, rifles, automatic, and semiautomatic weapons).

Ability to work with highly sensitive information in a confidential and professional manner.

Ability to assist other criminalists and laboratory technicians in trace evidence analysis.

Ability to examine forensic evidence and recognize and identify minute details.

Ability to establish and maintain effective working relations with others.

Ability to properly use laboratory equipment, photography equipment, standard office equipment, and chemicals.

Ability to transport tools, equipment, and evidence necessary to facilitate crime scene investigations.

Ability to perform job-related travel (e.g., appearing in court, observing crime scene investigations, and attending training meetings, seminars, etc.).

Ability to participate in and successfully pass practical and/or written competency test(s) prior to assuming casework.

Ability to review and revise manuals.

Ability to assist in educating individuals reference forensic science.

Ability to assist in developing methods and/or techniques to upgrade laboratory capability.

Ability to work with material that may be of a sexual nature relating to criminal activity (e.g., written material, photographs, and/or verbal language, etc.).

Ability to work hours as assigned.

### MINIMUM EXPERIENCE, EDUCATION, AND TRAINING REQUIRED

(The following represents the minimum qualifications used to accept applicants, provided that equivalent substitution will be permitted in case of deficiencies in either experience or education.)

Possess a baccalaureate degree in chemistry or one of the natural sciences; coursework must include at least 20 semester hours of chemistry including two semesters of general chemistry and two semesters of organic chemistry, with a minimum acceptable grade of C or equivalent in these courses.

AND

Possess at least two years of experience as a Criminalist I - Trace Evidence or comparable experience.